

determining the identity of the item from scanning a symbol associated with the item; and

associating the storage location and identity in a database.

20. The method of claim 19 wherein the storage facility is a warehouse, and the items are stored in defined storage locations such as shelves or bins.

21. The method of claim 19 wherein the storage facility lacks defined storage locations.

22. The method of claim 19 wherein the storage facility is a retail store in which the items are stored on display racks or shelves.

23. The method of claim 19 wherein the storage facility is a rail yard in which freight rail cars are stored.

24. The method of claim 19 wherein the storage facility is a ship yard.

25. The method of claim 19 wherein the symbol associated with the item is a bar code symbol.

26. The method of claim 19 wherein the bar code symbol is scanned using a hand held scanner when the item is stored.

27. The method of claim 26 wherein the bar code symbol is scanned using a hand held scanner when the item is removed from storage.

28. The method of claim 19 wherein the GPS signal received by the transceiver is corrected to remove errors by comparing the GPS signal to a GPS signal received at a base station at a known location.

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29. The method of claim 28 wherein location error is removed in real time by establishing communication between the transceiver and the base station.

30. The method of claim 28 wherein the location error is removed at a later time by recording the time at which the transceiver recorded the GPS signal; simultaneously recording another GPS signal at a base station of a known location; and using correction factors derived from the GPS signal recorded at the base station to remove the location error for the transceiver at corresponding times.

31. The method of claim 19 wherein the recording of the GPS signal by the transceiver and the scanning of the symbol are performed by the same portable device.

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32. The method of claim 19 wherein
the storage facility is a warehouse, and the items are
stored in defined storage locations such as shelves or bins;

the symbol associated with the item is a bar code
symbol;

the scanning at the time that item is stored and at the
time that it is retrieved is performed using a bar code scanner
contained in a portable device;

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the GPS signal received by the transceiver is corrected
to remove errors by comparing the GPS signal to a GPS signal
received at a base station at a known location; and

the recording of the GPS signal by the transceiver and
the scanning of the symbol are performed by the portable device.

33. A portable device for recording the identity and
location of items stored in a storage facility, the device
comprising:

a GPS transceiver capable of determining the location
at which the item is to be stored by recording a GPS signal
received at the location; and

a bar code scanner for determining the identity of the
item by scanning a symbol associated with the item.

34. The portable device of claim 33 wherein the GPS
transceiver and bar code scanner are integral parts of the
device.

35. The portable device of claim 33 further comprising a wireless communication transceiver for handling data communication between the portable device and a base station.

36. A method for constructing a map of storage locations in a storage facility, the method comprising:
moving to a first storage location;
recording a first GPS signal at the first storage location;
moving to a second storage location;
recording a second GPS signal at the second storage location;
comparing the first and second GPS signals to determine the relative location of the second storage location relative to the first storage location;
repeating the aforementioned actions to determine additional relative locations;
constructing the map from the relative locations.

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37. The method of claim 36 wherein the recorded first and second GPS signals are compared without first correcting each signal for location error in the signals.

38. The method of claim 36 wherein the recorded first and second GPS signals are corrected by comparing each signal to a GPS signal received at a base location of known location.--